

REMARKS

As a preliminary matter, please note that Applicants are filing herewith a Power of Attorney With Revocation and consequent change of correspondence address.

Claims 1-78 were pending in the present application. Claims 1-78 have been rejected. Claims 1, 8, 10, 16, 20, 25, 26, 28, 30-35, 37, 46, 48, 50, 51, 53, 57, 65, 66, 68, and 73-77 have been amended. No new matter has been added. Upon entry of the current amendments, claims 1-78 will be pending. Reconsideration of the Office Action of November 8, 2004 is respectfully requested in view of the above amendments and following remarks.

Title of the Invention:

The title of the invention has been amended to be more descriptive, as suggested by the Examiner. Accordingly, withdrawal of the objection to the Title of the Invention is requested.

Abstract

The Abstract has been amended to shorten it to less than 150 words. Accordingly, withdrawal of the objection to the Abstract is requested.

Drawings:

The drawings have been objected based on several objections raised by the Examiner. Figure 4 was objected to because no arrowhead was used on the lead line for numeral 100 to indicate generality and because a circular double arrowhead was not used adjacent the axis of rotation to indicate rotation. Figure 7B was objected to because it allegedly did not include a designation as "prior art." The drawings were also objected to because the drawings did not show every feature of the invention specified in the claims.

Figures 1, 4, 6A, 6B, 7A, and 8 have been amended to include an arrowhead at the end of the lead line for reference numeral 100.

Figure 4 has also been amended to include a circular double arrowhead adjacent the axis of rotation to indicate rotation.

Figure 7B has been amended to move the designation “PRIOR ART” to a location under the figure number.

Figure 1 has been amended to show a remote control unit. Support for a remote control unit can be found, for example, in the specification on page 11, lines 16-17 and original claim 13. The specification has been amended to add reference numeral “126a” for the remote controller to the paragraph beginning of page 11, line 11.

New Fig. 9 has been added to show the portable electric heater in a non-operating position disposed in a package for shipment. Support for the non-operating position disposed in a package for shipment can be found, for example, in the specification on page 10, lines 14-19 and original claims 40 and 61. The specification has been amended to add a description of Fig. 9 to the Brief Description of the Drawings and a reference to Fig. 9 in the paragraph beginning on page 10, line 14.

Replacement Sheets for the affected drawings have been provided. No new matter has been added. Accordingly, withdrawal of the objection to the drawings is requested.

Claims Objections:

Claims 59-61 have been objected to because claim 59 included a space in line 2 before the period. Claim 59 has been amended to delete the space before the period in line 2. Accordingly, withdrawal of the objection of claims 59-61 is requested.

Claims Rejections under 35 U.S.C. § 103(a):

1. The Examiner has rejected the pending claims under 35 U.S.C. § 103(a) as allegedly being unpatentable over one or a combination of references. Claims 1-8, 11, 12, 14, 20, 29, 38, and 42 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Alban (USP 4,780,595); claims 1-8, 11, 12, 14, 20, 29, 38, and 42 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Alban in view of Kunz (USP 3,725,640); claim 13 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Alban in view of Bailey (US Des. 468,005); claims 15-18, 21, 22, and 39-41 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Alban in view of Schafer (US 2004/0213559); claim 19 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Alban in view of Schafer and further in view of Shih-Chin (USP 4,703,152); Claim 23 is rejected under 35 U.S.C. § 103(a) as being

unpatentable over Alban in view of Schafer and further in view of Covault (USP 3,575,582); Claim 24 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Alban in view of Schafer and further in view of Bailey; Claims 25-28 and 65-71 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Alban in view of Schafer and further in view of Jones (USP 4,197,447); Claim 30 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Alban in view of Goldstein (US RE37,642) and further in view of Yeh (USP 5,192,853); Claims 31-37 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Alban in view of Goldstein, Yeh, and further in view of WO03/009735; claims 43-45 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Alban in view of Tedioli (USP 4,760,243); claims 10, 46-49, 54, 57, 58, and 62-64 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Alban in view of WO03/009735; claims 50-53 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Alban in view of WO03/009735, Goldstein, and further in view of Yeh; claims 55, 56, 59-61 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Alban in view of WO03/009735 and further in view of Schafer; claim 72 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Alban in view of Schafer, Jones, and further in view of Bailey; Claim 73 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Alban in view of Schafer and further in view of WO03/009735; and claims 74-78 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Alban in view of Schafer, WO03/009735, Goldstein, and further in view of Yeh.

Applicants respectfully traverse the rejections under 35 U.S.C. § 103(a) and submit that no single reference or proper combination of the references of record would yield Applicants' unique invention, as recited in the claims of the present application.

For the Examiner to make a rejection based on obviousness, 35 U.S.C. § 103(a) and MPEP § 2141 require adherence to the following tenets of patent law: (A) the claimed invention must be considered as a whole; (B) the references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination; (C) the references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and (D) reasonable expectation of success is the standard with which obviousness is determined.

To establish a *prima facie* obviousness, MPEP §2142 requires that the examiner bear the initial burden of factually supporting any *prima facie* conclusion of obviousness. There

must first be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference or references when combined must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure (emphasis added).

To rely on a reference under 35 U.S.C. 103, it must be analogous prior art. MPEP 2141.01(a). The examiner must determine what is "analogous prior art" for the purpose of analyzing the obviousness of the subject matter at issue. "In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992).

In the instant case, several of the references relied upon by the Examiner are non-analogous art. The field of applicant's endeavor in the present application is heaters, and more particularly, electric heaters for heating a room or space. In contrast, U.S. Patent 4,780,595 (Alban), US 2004/0213559 (Schafer) and WO 03/009735 are directed to dryers, and more particularly, to body dryers for drying the body and hair of a person. Since the invention of the present application is directed to a different field of endeavor than the body dryer references, those references are non-analogous prior art.

In addition, a reference may be reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem. *Wang Laboratories Inc. v. Toshiba Corp.*, 993 F.2d 858, 26 USPQ2d 1767 (Fed. Cir. 1993).

The particular problem that the inventors in the present application were concerned is elevating the temperature in a living space and allowing a user to more quickly experience the produced heat in order to heat the living space and more immediately warm the user. In contrast, the body dryer references (Alban, Schafer, and WO 03/009735) are concerned with

drying the human body and hair. The body dryer references are not reasonably pertinent to the particular problem with which the inventors of the present application were concerned.

Furthermore, these references actually teach away from the use of warm air from heaters for drying oneself because, according to the dryer references, conventional heaters do not provide an efficient method of drying. See, WO 03/009735 at p. 1, lines 9-11.

Accordingly, there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings. Therefore, the examiner has failed to establish a *prima facie* case of obviousness.

It is improper to rely on the dryer references (Alban, Schafer, and WO 03/009735) under 35 U.S.C. §103 since those references are non-analogous art and also because there is no motivation to combine the dryer references with any of the heater references. The body dryer references are in a different field of endeavor from the portable electric heater of the present application. In addition, the body dryer references are not reasonably pertinent because the matter in which they deal would not logically commend itself to the inventors' of the present application attention in considering their problem. Accordingly, withdrawal of the rejection of pending claims 1-78 under 35 U.S.C. §103, which are all based in whole or in part on the dryer references (Alban, Schafer, and WO 03/009735), is requested because the dryer references are non-analogous prior art and it is improper to rely on those references under 35 U.S.C. §103 and also because, the cited references lack the necessary suggestion or motivation to combine.

Furthermore, independent claims 1, 57, and 65 have been amended to more clearly define over the art of record. Independent claim 1 is representative and recites:

1. (Currently Amended) A portable electric heater for providing a heated exhaust air stream at an elevation above a support surface, said portable electric heater comprising:
 - an elongate housing having at least one sidewall, a top end, a bottom end, and a longitudinal length extending substantially upward from said bottom end to said top end, and a horizontal cross sectional area;
 - a base for supporting said elongate housing in a vertical and upright position on said support surface, said base contacting said support surface;

at least one interior space within said elongate housing;
at least one inlet opening in said elongate housing allowing inlet air to enter said at least one interior space;
an air blower assembly disposed within said at least one interior space for receiving said inlet air, said air blower assembly comprising:

- i) at least one non-axial air impeller having a substantially vertical axis of rotation;
- ii) at least one motor to rotate said non-axial air impeller about said substantially vertical axis of rotation to generate an exhaust air stream;

at least one vertically oriented elongate outlet opening in said elongate housing allowing said exhaust air stream to exit said at least one interior space; and

at least one vertically oriented elongate electric heating element disposed within said at least one interior space between said air blower assembly and said at least one outlet opening;

wherein the flow of said exhaust air stream from said non-axial air impeller toward said at least one vertically oriented elongate outlet opening is a substantially direct and straight vector;

wherein substantially all of said exhaust air stream is heated by said at least one vertically oriented elongate electric heating element forming said heated exhaust air stream;

wherein said heated exhaust air stream exits said elongate housing at an elevation above said support surface, said elevation being defined by a distance from where said base contacts said support surface to a highest vertical exit point of said heated exhaust air stream from said at least one interior space; and

wherein said elevation of said heated exhaust air stream is about 20 inches or greater.

As stated above, it is respectfully submitted that the cited references do not make obvious the claimed invention amended claims 1, 46, 57, and 65 (the their dependent claims) because the references fails to disclose or teach one or more features of the independent claims. For example, the art of record does not disclose or teach a portable electric heater having a vertically oriented elongate housing defining an interior space and having a vertically oriented elongate outlet opening, a vertically oriented elongate electric heating element disposed within the interior space proximate the elongate outlet opening, and an air blower assembly disposed within the interior space including a non-axial air impeller having a substantially vertical axis of rotation, wherein the flow of said exhaust air stream from said non-axial air impeller toward said at least one vertically oriented elongate outlet opening is a

substantially direct and straight vector, and wherein substantially all of said exhaust air stream is heated by said at least one vertically oriented elongate electric heating element.

In addition, the other references of record do not cure the deficiencies of the cited references. If an independent claim is nonobvious under 35 U.S.C. §103(a), then any claim depending therefrom is nonobvious. See MPEP 2143.03. Accordingly, withdrawal of the rejections of the claims under 35 U.S.C. §103(a) is requested for this additional reason.

Regarding the rejection of various claims (for example, claims 1-6, 22, 30, 32-34, 37, 46-49, 53, 56, 57, 62-64, 70, 71, and 75-77) reciting dimensional aspects and properties of the claimed invention, the examiner relies on conclusory statements, such as: "such parameters constitute mere engineering design preference well within the realm of routine experimentation by skilled artisans" and "such parameters merely set forth optimum values of heaters dimensions well within the scope of routine experimentation by those skilled in the art" to allege that these claims would be obvious. The examiner, however, has not cited to a single piece of prior art (or combination of prior art references) that discloses or teaches all of the features recited in the claims and therefore has failed to establish a *prima facie* case of obviousness. These allegations without more and/or reliance on common knowledge in the art is insufficient to meet the basic requirements of a *prima facie* case of obviousness.

Applicants traverse the rejections based on obviousness and request that the Examiner cite a reference (or references) in support of his position, as required by MPEP 2144.03. Alternatively if the rejection is based on facts within the personal knowledge of the examiner, Applicants request that the Examiner specifically set forth the data and/or facts that are being relied upon support of such allegations in an affidavit from the Examiner, in accordance with MPEP 2144.03. Such an affidavit will provide an opportunity for Applicants to evaluate the basis of the current rejections in order to contradict the allegations or further explain the invention. Applicants have provided numerous examples within the specification of the benefits and advantages that the claimed dimensions, relative sizes, and properties provide, such as providing for a space savings design; providing the desired vertical aspect ratio while maintaining the desired air flow and watt density within the elongate heating element, etc. See, for example, Figs. 3A, 3B, and 4 and the description of those figures on pages 12-18.

Regarding the rejection of claims 25-28 and 65-71, the Office Action states that these claims are rejected as allegedly being unpatentable over Alban in view of Schafer, and further in view of Jones. This rejection is transverse.

Jones discloses a modular infrared space heater and does not disclose or teach an air containment frame between a vertically oriented elongate electric heating element and a grill. Jones discloses a heating chamber 30 having infrared lamps 34 and a reflector 36 positioned opposite the lamps. Lens 39 are provided to concentrate infrared radiation from lamps 34 onto ferrous sheet 42 and ferrous conduits 44 (Jones at cols. 2-3). The conduits 44 disclosed by Jones serve to increase the heat transfer area (Jones at col. 4, lns. 1-5). Conduits 44 transmit heat from each “bubble” in lens 39 and do not prevent the heated exhaust air stream from expanding in an area between the vertically oriented elongate heating element and the grill. Jones does not disclose or teach an air containment frame, as recited in claims 25-28 and 65-68. Furthermore, Jones does not disclose or teach air alignment elements, as recited in claims 26-28 and 66-68. Accordingly, withdrawal of the rejection of claims 25-28 and 65-71 (and dependent claims 72-78) is requested.

Regarding the WO 03/009735 reference, the present application is a Continuation-in-Part of U.S. patent application Serial No. 10/322,169, filed December 18, 2002, now U.S. Patent No. 6,760,543. The priority date of the parent application is December 18, 2002 and the international publication date of the WO 03/009735 reference is February 6, 2003. Therefore, various features of the present application have a priority date that pre-dates the priority date of the WO 03/009735 reference for prior art purposes and applicant can swear behind the WO 03/009735 reference for the features disclosed in the parent application. Accordingly, withdrawal of the rejection of claims 10, 31-37, 46-49, 54, 57, 58, 62-64 and 65-71 is requested.

DOCKET NO.: LPI-239US (LASK-0016)
Application No.: 10/827,145
Office Action Dated: November 8, 2004

PATENT

Conclusion

In view of the foregoing amendments and remarks, Applicants submit that the above-identified application is in condition for allowance. Early notification to this effect is respectfully requested. If the Examiner has any questions regarding this response, the Examiner is invited to contact the undersigned attorney at (215) 568-3100.

Date: January 26, 2005



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Amendments to the Drawings

The attached sheets of drawings includes changes to Figures 1, 4, 6A, 6B, 7A, and 8 and new Figure 9. The replacement sheets, which include Figures 1, 4, 6A, 6B, 7A, and 8, replace the original sheets for those figures.

Attachment: Replacement Sheet(s)